

New Record of Two Ascophoran Species (Bryozoa, Cheilostomata) from Manjaedo Island, Korea

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ABSTRACT

Some bryozoans were collected from the subtidal zone of Manjaedo Island on 23 Aug. 1988. Two species of them, *Crepidacantha poissoni* (Audouin, 1826) and *Hippothoa distans* MacGillivray, 1869 turned out to be new to the Korean fauna. The family Crepidacanthidae is new to Korea.

Key words: new record, ascophoran bryozoans, Manjaedo Island, Korea.

INTRODUCTION

The bryozoan specimens were rarely collected from Manjaedo Island so far. Six bryozoan species, which are *Amastigia rudis*, *Beania vegae*, *Fenestrulina malusii*, *Phidolopora pacifica*, *Celleporina geminata* and *Celleporina porosissima*, were reported from Manjaedo Island till now (Seo, 1992).

The suborder Ascophora is a dominant group of bryozoans, occurring everywhere in the sea and is of some importance as nuisance organisms in the encrusting of ship's bottoms, buoys, etc., or covering the "cultch" oyster beds to the exclusion of oyster larvae (Osburn, 1952). Sixty four species of the ascophorans have so far been reported in Korea (Rho and Seo, 1984, 1985, 1986, 1988; Seo and Rho, 1989; Seo, 1992, 1993, 1994, 1998a, b). The family Crepidacanthidae is first reported from Korea.

The bryozoan specimens were encrusting the algae collected from the subtidal zone of Manjaedo Island (34° 12' N, 125° 29' E) on 23 Aug. 1988. They were bleached and burned for observation with a stereomicroscope, and identified into *Crepidacantha poissoni* (Audouin, 1826) and *Hippo-*

thoa distans MacGillivray, 1869, which are new to the Korean fauna.

The two species are redescribed and illustrated with photographs of a scanning electron microscope.

SYSTEMATIC ACCOUNTS

Phylum Bryozoa Ehrenberg, 1831 태형동물문

Class Gymnolaemata Allman, 1856 나후강

Order Cheilostomata Busk, 1852 순구목

Suborder Ascophora Levinsen, 1909 유낭아목

Family Crepidacanthidae Levinsen, 1909 채찍이끼벌레과 (신칭)

***Crepidacantha poissoni* (Audouin, 1826) 맞채찍이끼벌레 (신칭) (Fig. 1A, B)**

Flustra poissonii Audouin, 1826, p. 240, pl. 10, fig. 5¹, 5².

Lepralia poissonii: Hincks, 1885, p. 256; Norman, 1909, p. 307, pl. 41, figs. 7, 8.

Crepidacantha poissonii: Harmer, 1957, p. 981, pl. 67, fig. 22.

Crepidacantha poissoni: Canu and Bassler, 1929, p. 409; Osburn, 1952, p. 478, pl. 58, fig. 2.

Material examined. Manjaedo Island (25 m deep), 23 Aug. 1988, J. K. Je.

Description. Colony encrusting algae. Zooids 261 × 300 μm on average, diamond-shaped, separated by deep grooves; frontal grained. Ten long and slender spines occur from dorsal side below level of the orifice, overlapping the frontal walls of distal zooids. Orifice trifoliate with anter usually as wide as long, constricted laterally, the proximal lip of the poster incurved by a umbo projecting forward. A pair of avicularia directed inwards; mandibles long and setiform, crossing at the middle. Ovicell hyperstomial, closed by the operculum.

Remarks. These specimens were somewhat smaller than ones from eastern Pacific Ocean averaging about 0.55 long by 0.40 wide. The numbers of spines were exactly ten in our specimens, while the ones were six to ten in Osburn's (1952) and about 14 in Norman's (1909). This family is new to the Korean fauna.

Distribution. Korea, Japan, Gulf of California to Galapagos Island, Philippine, Sumbawa, Tahiti, Gulf of Mexico, Egypt, Madeira.

Family Hippothoidae Fischer, 1866 향아리이끼벌레과

***Hippothoa distans* MacGillivray, 1869 향아리이끼벌레 (신칭) (Fig. 2A, B)**

Hippothoa distans MacGillivray, 1869, p. 130; Brown, 1952, p. 203, fig. 142; Harmer, 1957, p. 951, pl. 73, figs. 25, 27, 28; Hastings, 1979, p. 550, figs. 5, 6.

Hippothoa aurens Morris, 1980, p. 25, text-figs. 6, 34, pl. 1, figs. 3, 4, 6.

Material examined. Manjaedo Island (25 m deep), 23 Aug. 1988, J. K. Je.

Description. Colony encrusting algae. Zooids uniserial, partly parallel-sided by lateral slender process, pyriform averaging 0.14 mm wide, 0.25 mm long, fragile; frontal convex with a faint longitudinal midrib. Ovicelled zooid broader, 0.18 mm than autozooid, with short curving cauda. Orifice with rounded v-shaped sinus with condyles, which bigger than ovicelled zooids. Ovicell smooth with median porous area. Zooeciules from lateral of zooid, with oval orifice lacking condyles. Avicu-

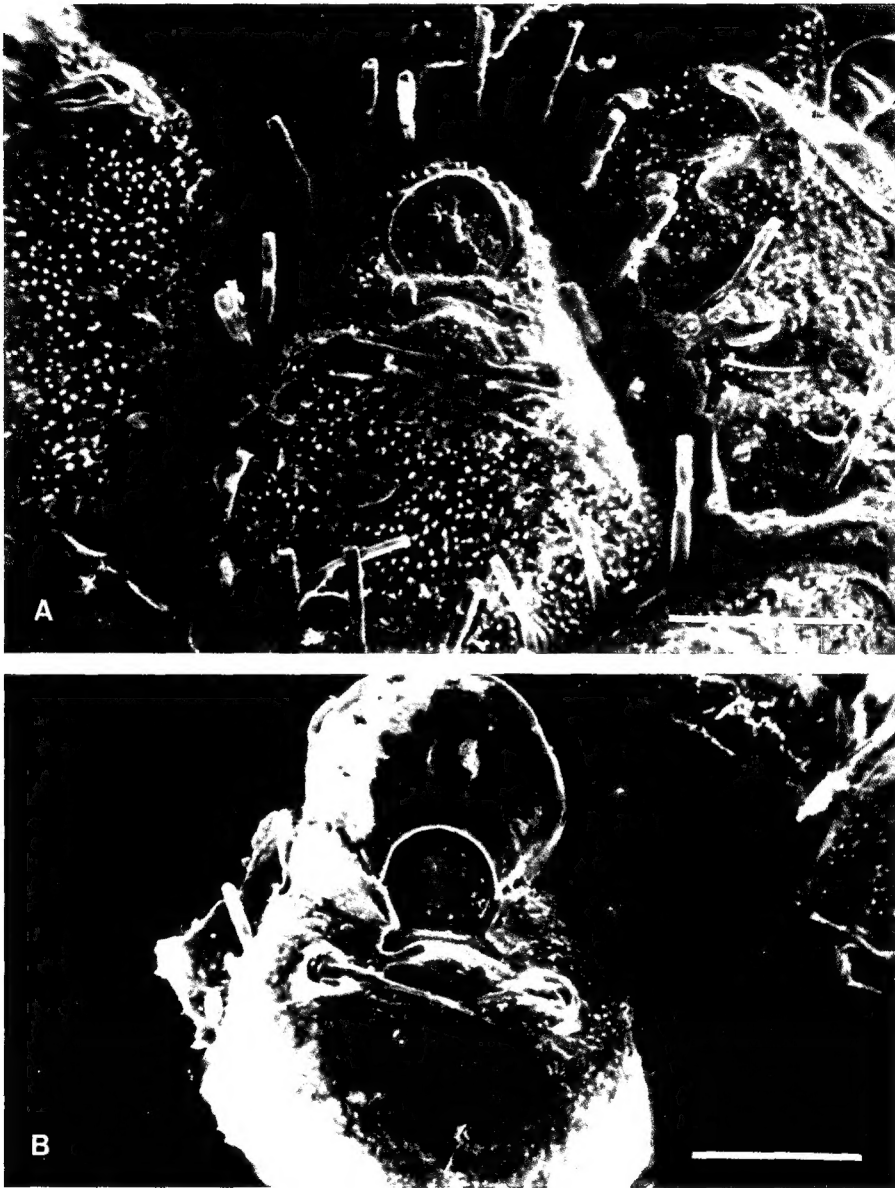


Fig. 1. *Crepidacantha poissoni*. A, Zooid with 10 spines; B, Zooid with ovicell. Scale bars = 0.1 mm.

larium not found.

Remarks. As Gordon (1984) described *H. distans* commonly occurs on algae, our specimens encrusted creeping on the algae. No avicularium observed in this specimen as the one from Kermadec ridge, New Zealand (Gordon, 1984).

Distribution. Korea, Japan, Sumbawa, Sulu Archipelago, Banda Sea, Sulu Is., Celebes, Indonesia, Timor, Southwest Australia, New Zealand.

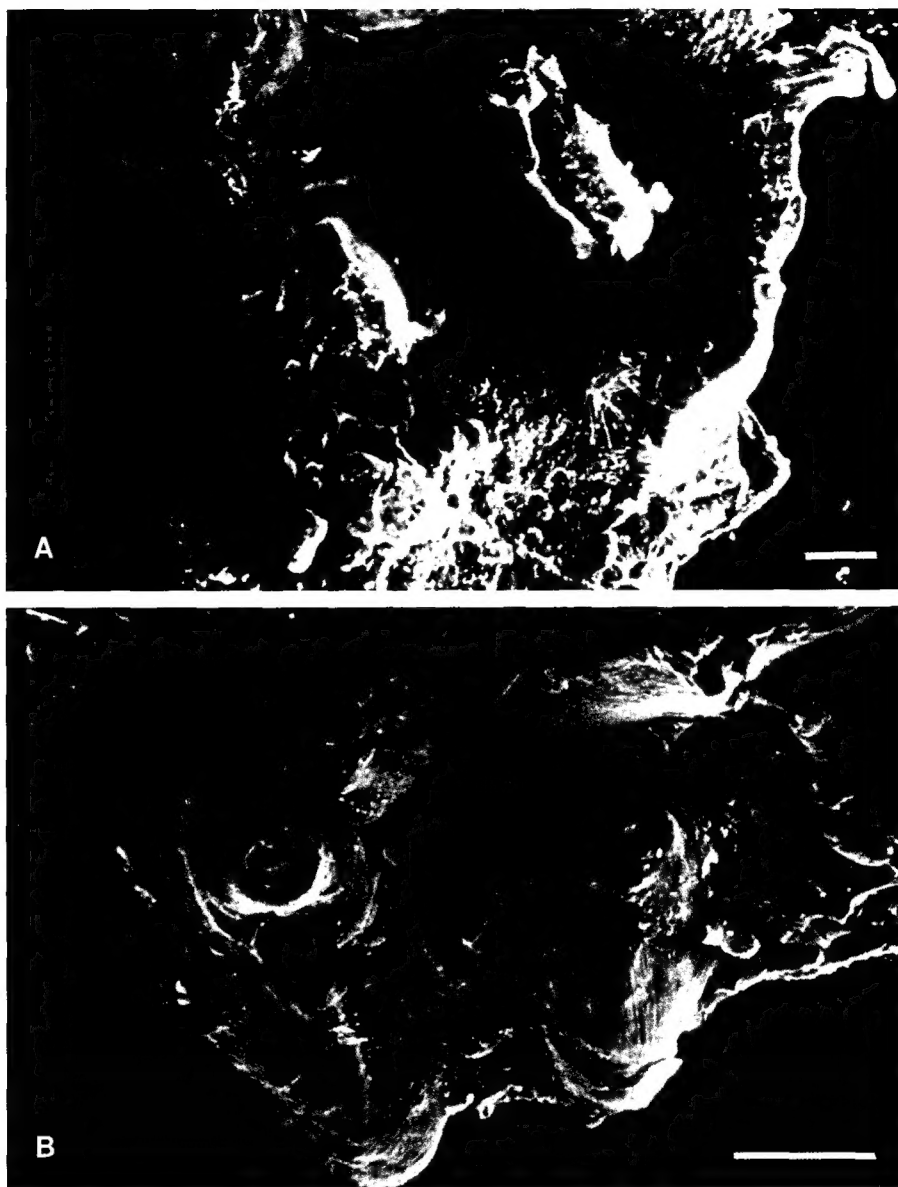


Fig. 2. *Hippothoa distans*. A, Uniserial zooids with lateral slender processes; B, Zooid with ovicell and zoeciules. Scale bars = 0.1 mm.

REFERENCES

- Audouin, J. V., 1826. Explication sommaire des planches de l'Egypte et de la Syrie. in Description de l'Egypte. Hist. Nat., Paris, **1**(4): 225-249 (cited from Osburn, 1952).
- Brown, D. A., 1952. The tertiary cheilostomatous Polyzoa of New Zealand, Brit. Mus. (Nat. Hist.), pp. 1-405.

- Canu, F. and R. Bassler, 1929. Bryozoa of the Philippine region. Bull. U.S. Nat. Mus. 100, **9**: 1-685.
- Gordon, D. P., 1984. The marine fauna of New Zealand: Bryozoa: Gymnolaemata from the Kermadec Ridge. N. Z. Oceanograph. Inst. Mem., **91**: 1-198.
- Harmer, S. F., 1957. Polyzoa of the Siboga expedition. Part IV. Cheilostomata-Ascophora II. Siboga-Expeditie, **28d**: 641-1147.
- Hastings, A. B., 1979. The genus *Hippothoa* Lamouroux [Polyzoa (Bryozoa) Cheilostomata]. J. Nat. Hist., **13**: 535-560.
- Hincks, T., 1885. Contributions towards a general history of the marine Polyzoa. XIV. Polyzoa from New Zealand and Australia. Ann. Mag. N. Hist. ser. 5, **15**: 244-260.
- MacGillivray, P. H., 1869. Descriptions of some new genera and species of Australian Polyzoa; to which is added a list of species found in Victoria. Trans. Roy. Soc. Victoria, **9**: 126-148 (cited from Gordon, 1984).
- Morris, P.A., 1980. The bryozoan family Hippothoidae (Cheilostomata-Ascophora) with emphasis on the genus *Hippothoa*. Monograph series of the Allan Hancock Foundation, 113 pp.
- Norman, C. A. M., 1909. The Polyzoa of Madeira and neighbouring islands. Linn. J. Zool., **30**: 275-324.
- Osburn, R. C., 1952. Bryozoa of the Pacific coast of America. Part II. Cheilostomata-Ascophora. Allan Hancock Pac. Exped., **14**(2): 271-611.
- Rho, B. J. and J. E. Seo, 1984. A systematic study on the marine bryozoans in Korea. 4. Cheilostomata. J. Kor. Res. Inst. Better Liv., Ewha Womans Univ., **33**: 73-98.
- Rho, B. J. and J. E. Seo, 1985. A systematic study on the marine bryozoans in Korea. 5. Cheilostomata. J. Kor. Res. Inst. Better Liv., Ewha Womans Univ., **35**: 53-68.
- Rho, B. J. and J. E. Seo, 1986. A systematic study on the marine bryozoans in Cheju-do. Korean J. Zool., **29**(1): 31-60.
- Rho, B. J. and J. E. Seo, 1988. On new species, *Codonellina parviaviculata*, sp. nov. an Ascophoran Bryozoa from the Yellow Sea in Korea. Korean J. Syst. Zool., Special Issue (2): 37-42.
- Seo, J. E., 1992. A systematic study on the bryozoans from the South Sea in Korea. I. Cheilostomata. Korean J. Syst. Zool., **8**(1): 141-160.
- Seo, J. E., 1993. Systematic study on bryozoans from the South Sea in Korea. II. Smittinidae. Korean J. Syst. Zool., **9**(1): 35-50.
- Seo, J. E., 1994. Two species of *Celleporaria* (Cheilostomata: Bryozoa) from Korea. Korean J. Syst. Zool., **10**(2): 189-197.
- Seo, J. E., 1998a. Marine bryozoans from Geojedo island in Korea. Korean J. Syst. Zool., **14**(3): 207-217.
- Seo, J. E., 1998b. Taxonomy of the marine bryozoans from Namhaedo island and its adjacent waters, Korea. Korean J. Syst. Zool., **14**(4): 415-424.
- Seo, J. E. and B. J. Rho, 1989. A systematic study on the marine bryozoans in Korea. 6. Ascophora. Korean J. Syst. Zool., **5**(2): 205-223.

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요 약

만재도의 조하대로부터 1988년 8월 23일에 채집된 태형동물을 분류한 결과 맞채찍이끼벌레 (*Crepidacantha poissoni*)와 항아리이끼벌레 (*Hippothoa distans*)의 2종이 한국미기록종으로 밝혀졌다. 채찍이끼벌레과 (Crepidacanthidae)는 우리나라에서 처음으로 보고된다.